

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Bailey et al.

Application Serial No. 10/820,972

Filing Date: April 8, 2004

Art Unit 1793

Examiner Shuangyi Abu-Ali

Confirmation No. 9539

STARCH BINDER COMPOSITIONS,
METHODS OF MAKING THE SAME AND
PRODUCTS FORMED THEREFROM

Docket No. 030621/MIL.0005.US00

REPLY BRIEF UNDER 37 C.F.R. § 41.41

November 20, 2009

VIA EFS-WebMail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Appellant submits this Reply Brief in response to the Examiner's Answer mailed on September 22, 2009 in connection with the pending appeal in the above-identified patent application (the "Subject Application"). This Reply Brief is timely as it is filed within two (2) months from the date on which the Examiner's Answer was mailed. 37 C.F.R. § 41.41. Appellant respectfully requests entry and consideration of this Reply Brief.

I. STATUS OF CLAIMS

Claims 1-35 and 45-50 are pending in the Subject Application. Claims 36-45 were previously canceled without prejudice or disclaimer in an Amendment filed on September 4, 2007. Dependent claims 8, 9, 16, 17, 24, 25, 34, and 35 currently stand withdrawn from consideration. Claims 1-7, 10-15, 18-23, 26-33, and 46-50 were under examination on the merits and currently stand rejected under 35 U.S.C. § 103(a). Claims 1-7, 10-15, 18-23, 26-33, and 46-50 form the basis of this Appeal. Claims 1, 10, 18, 26, and 50 are independent claims.

Claims 8, 9, 16, 17, 24, 25, 34, and 35 were withdrawn from consideration in response to a Restriction Requirement mailed on February 7, 2007. Claims 8, 9, 16, 17, 24, 25, 34, and 35 each depend from and incorporate the features of one of independent claims 1, 10, 18, and 26. Accordingly, Appellant respectfully requests rejoinder of claims 8, 9, 16, 17, 24, 25, 34, and 35 pursuant to MPEP § 821.04 in view of the patentability and allowability of claims 1-7, 10-15, 18-23, 26-33, and 46-50, as discussed in Appellant's Appeal Brief filed on June 19, 2009 and in this Reply Brief.

II. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether the Examiner has established a *prima facie* case that claims 1-7, 10-15, 18-23, 26-33, and 46-50 are unpatentable under 35 U.S.C. § 103(a) as having been obvious over United States Patent No. 5,766,366 to Ferguson et al. ("Ferguson") in view of United States Patent No. 4,407,955 to Muller et al. ("Muller").

III. ARGUMENTS

In the Final Office Action mailed on January 21, 2009, pending claims 1-7, 10-15, 18-23, 26-33, and 46-50 were rejected by the Examiner under 35 U.S.C. § 103(a) as allegedly having been obvious over Ferguson in view of Muller. In the Final Office Action, the Examiner maintained the § 103(a) rejection as generally set forth in the previous non-final Office Action mailed on July 16, 2008.

In response to the Final Office Action, an after-final Amendment pursuant to 37 C.F.R. § 1.116(b)(3) was filed on April 21, 2009 presenting the rejected claims in better form for consideration on appeal. On April 21, 2009, a Notice of Appeal and a Pre-Appeal Brief Request for Review were also filed. The Conference Panel issued a Notice of Panel Decision from Pre-Appeal Brief Review on April 27, 2009 indicating that the Subject Application remains under appeal because issues remain for consideration by the Board. In an Advisory Action mailed on May 19, 2009, the Examiner indicated that the after-final Amendment filed on April 21, 2009 failed to place the Subject Application in condition for allowance, but that the claim amendments were entered.

Appellant filed an Appeal Brief under 37 C.F.R § 41.37 on June 19, 2009 discussing the pending rejection of claims 1-7, 10-15, 18-23, 26-33, and 46-50 under 35 U.S.C. § 103(a) and demonstrating why these claims would not have been obvious in view of Ferguson and Muller. On September 22, 2009, the Examiner mailed an Answer in response to the Appeal Brief. Appellant submits that the Examiner's Answer contains a number of statements that are factually incorrect, legally incorrect, or both. Appellant addresses these erroneous statements herein. All references herein to the specification of the Subject Application refer to the paragraph numbers of the specification as originally filed, not as published.

A. The distinctions between starch and flour

In the Examiner's Answer, on page 5, under the heading "Response to Argument", the Examiner states the following:

Please note that the [A]ppellant admitted that acid treated dry-milled starch is the same as acid treated dry-milled flour. (Emphasis in the original).

This statement is incorrect. Appellant notes that the claims of the Subject Application originally recited a "dry-milled starch composition". However, the term "starch" as originally used in the claims had a different meaning than the term "starch" as used in Ferguson and Muller. See the Specification, paragraph [0021]:

[0021] As used herein the term "dry-milled starch" refers to the flour product of a processed raw grain (Emphasis added).

By definition, this term as used in the Subject Application is chemically different than and distinct from the carbohydrate materials termed "starch" in Ferguson and Muller. The claims of the Subject Application were amended to recite flour and clarify the chemical distinction.

Appellant never admitted that starch is the same as flour. Indeed, throughout the prosecution of the Subject Application, the Applicants repeatedly emphasized the clear and significant chemical differences and distinctions between starch (as taught in the cited references) and flour (as recited in the claims of the Subject Application). Appellant discussed the significant differences and distinctions in the Appeal Brief. Further, the significant differences and distinctions are described in the specification of the Subject Application

A dry-milled flour refers to the flour product of a processed raw grain in the substantial absence of liquid. Specification, para. [0021]. A dry-milled flour composition as used in the Subject Application, including the claims, is understood to include the whole cereal grains themselves, grains with at least a portion of the seedcoats removed, and/or individual grain tissues. Id. These materials may include grain, grit, meal, flakes, or flour. Id. Moreover, as used in the Subject Application, dry-milled flour

compositions comprise varying levels of ash, proteins, fats, and insoluble fibers. Id. at para. [0039].

In contrast, starch, as used in the cited references, refers to a polysaccharide carbohydrate material having multiple glucose monosaccharide units covalently linked together by glycosidic bonds. See, e.g., "Starch" in The Condensed Chemical Dictionary, 10th ed., G. G. Hawley, Litton Educational Publishing, Inc., 1981. Chemically, starch (e.g., amylose, amylopectin, etc.) is a relatively pure material consisting essentially of polysaccharide molecules (*i.e.*, poly-glucose). Id.

Flour contains starch (in addition to proteins, fats, and the like), but flour and starch are not the same material. By way of analogy, hydrochloric acid includes water, chloride ions, and hydronium ions, but one could not reasonably state that hydrochloric acid and water are the same composition. The specification of the Subject Application clearly shows the significant differences and distinctions between starch compositions (as disclosed in the cited references) and flour compositions (as recited in the claims of the Subject Application). Appellant never indicated otherwise, contrary to the Examiner's incorrect statement.

B. Ferguson and Muller only teach the use of starch carbohydrate, not flour

Ferguson is directed to processes involving starch carbohydrate materials derived from wet-milled grains. See Ferguson, c.2, ll.16-60 (describing various base starches in terms of specific molecular structure, *i.e.*, amylopectin, amylose, and chemically derivatized versions thereof). A person skilled in the art would have known that wet-milling processes are generally designed to isolate pure starch from the other components of whole-grain materials. See, e.g., Muller, c.2, ll.18-21 (stating that "[w]et milling processes typically remove all but an insignificant amount of non-starch materials, *i.e.*, protein, cellulosic fiber and oil, from the starch component of the grain..." (Emphasis added)). Ferguson provides no mention whatsoever of the non-starch (*i.e.*,

the non-carbohydrate) components of processed raw grains such as fats and proteins. Rather, Ferguson focuses exclusively on starch carbohydrate materials.

In the Examiner's Answer, on page 6, the Examiner states the following:

Appellant argues that Ferguson uses relative [sic] pure starch. The Examiner respectfully submits that Ferguson disclose [sic] that any kind of starch base material can be used. It is not only limited to pure starch.

This statement is partially incorrect. It is true that Ferguson discloses that the process described therein "can be used for any type of starch to be thinned." Ferguson, c.2, II.7-8. In this regard, Ferguson further states that "[a]ny starch source including common dent corn, waxy maize, potato, waxy milo, arrowroot, wheat, rice, tapioca and sago starches can be thinned by this process." Id. at c.2, II.25-27. Thus, Ferguson suggests, for example, the use of corn starch, or potato starch, or wheat starch, *i.e.*, any **starch** derived from any source. However, the Ferguson process is specifically designed to thin **starch** (*i.e.*, poly-glucose), **not flour**.

As pointed out in the Examiner's Answer, a reference can be used for all that it realistically teaches, and is not limited to specific examples. Likewise, a reference must be considered in its entirety, *i.e.*, as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540 [220 USPQ 303] (Fed. Cir. 1983); MPEP § 2141.02(VI). Here, when viewed as a whole, Ferguson clearly teaches the use of starch, which regardless of its source, is significantly different than and distinct from a flour composition because it does not include fats, proteins, and the like. **The teachings presented in Ferguson are just not applicable to flour compositions that include fats and proteins.**

Muller does not remedy the deficiencies of Ferguson. The Examiner contends that Muller is cited to merely show that dry-milled starch is cheap and economical. Therefore, the Examiner apparently asserts that it would have been obvious to take a dry-milled starch from Muller and feed it into the process as described in Ferguson to reduce cost. Appellant does not necessarily dispute this point. A person

skilled in the art reading Ferguson and Muller may perhaps find it advantageous to take the carbohydrate starch fraction of the dry-milled materials disclosed in Muller and, instead of fully hydrolyzing the starch to glucose as described in Muller, partially hydrolyzing the starch to a thinned starch (*i.e.*, a lower molecular weight polysaccharide). However, even if this hypothetical starch processing combination were to be performed for economic reasons, it would still not achieve or otherwise suggest the flour compositions recited in the claims of the Subject Application.

Ferguson essentially teaches taking starch (*i.e.*, poly-glucose) – from any source – and breaking some of the glucose-glucose bonds to form lower molecular weight (*i.e.*, thinned) starch molecules. Muller essentially teaches taking dry-milled materials, removing all the fat, protein, and the like, thereby isolating the starch fraction, and breaking all of the glucose-glucose bonds in the isolated starch to form free fermentable glucose. When considered collectively, in their entirety, and as a whole, both references emphasize and focus on the hydrolysis of relatively pure starch to produce relatively pure lower molecular weight carbohydrate products. There is nothing in either reference that teaches or suggests the purposeful use of flour compositions (including the fat components, protein components, and the like) in either of the disclosed processes. Indeed, Muller describes the purposeful removal of such non-starch flour components from dry-milled materials, and a person skilled in the art would readily recognize that such non-starch components would serve no technological function in the Ferguson process because it is designed to thin starch. Consequently, the cited references, collectively, would not have suggested the acid modified dry-milled flour compositions recited in the claims of the Subject Application.

C. Appellant is not arguing against the references individually

In the Examiner's Answer, on pages 6-7, the Examiner states the following:

In response to [A]ppellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Appellant recognizes that the Examiner's statement reproduced above is essentially a quote taken verbatim from MPEP § 2145.IV. The Examiner is merely citing case law that is assumed to be on point without actually showing how the cited case law actually supports the Examiner's arguments. Nonetheless, Appellant submits, contrary to the Examiner's assertion, that: (1) Appellant is not attacking the cited references individually; and (2) the cited cases do not support the legal proposition for which the cases are cited by the Examiner.

First, as discussed in Appellant's Appeal Brief, Ferguson clearly does not teach or suggest processing dry-milled flour compositions in any manner whatsoever. Apparently, the Examiner believes that Appellant's arguments are based on this fact alone. In this regard, the Examiner apparently contends that Appellant's arguments ignore the fact that Muller teaches the use of dry-milled materials as a source of starch to be hydrolyzed. This is simply not true.

As also discussed in Appellant's Appeal Brief, Muller teaches that dry-milled materials may be used as a source of starch that is hydrolyzed to produce fermentable sugar, primarily glucose. Muller, c.4, ll.58-64. The Examiner cites to Muller at column 2, lines 31-41 as providing motivation for a person skilled in the art to modify Ferguson in view of Muller because dry-milled starch is allegedly cheap and economical:

30 Where, as in the case of low cost industrial ethanol, a
 minimal use of energy is necessary to achieve an eco-
 nominically viable process, a relatively energy and capital
 intensive process such as one based on wet-milled corn
35 starch as the starting material can be disadvantageous.
 For this reason, the hydrolytic conversion of starch
 derived from any of the known and conventional dry
 milling processes is especially desirable in an industrial
 scale anhydrous ethanol operation since dry milling
40 processes employ no added water beyond the moisture
 which is already naturally present in the grain.

(Emphasis added)

This portion of Muller teaches that wet-milling costs less than dry-milling and, therefore, it is desirable to hydrolyze starch derived from dry-milled materials as opposed to wet-milled materials. As noted above, a person skilled in the art reading Ferguson and Muller may perhaps find it advantageous to take the carbohydrate starch fraction of the dry-milled materials disclosed in Muller and, instead of fully hydrolyzing the starch to glucose as described in Muller, partially hydrolyze the starch to a thinned starch as described in Ferguson. Nevertheless, as a factual matter, nothing in Ferguson or Muller, taken collectively, teaches the use of dry-milled flour compositions, including fat components, protein components, and the like.

Indeed, Muller teaches the purposeful removal of fat components, protein components, and the like from dry-milled materials in order to produce isolated fermentable sugars, primarily glucose. A reference must be considered in its entirety, *i.e.*, as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., supra. Here, when viewed collectively and in their entirety, Ferguson and Muller clearly teach the use of starch, which regardless of its source or whether it is derived through wet-milling or dry-milling, is chemically different than and distinct from a flour composition. The combined teachings of Ferguson and Muller are just not applicable to flour compositions

including fats and proteins. Thus, Appellant is not attacking the references individually; Appellant is attacking the references collectively.

Second, if a full consideration is given to the cases In re Keller and In re Merck, *supra*, rather than merely the one sentence recited in MPEP § 2145.IV, it is clear that the holdings of these cases do not support the Examiner's position.

In In re Keller, the Examiner rejected claims reciting a cardiac pacemaker apparatus in view of two (2) references. The primary reference described all of the claim limitations except for a "digital time base pulse generator" (the primary reference described an analog time base pulse generator). The secondary reference described digital generators and taught that digital generators are the functional equivalent of analog generators. The Examiner asserted that it would have been obvious to modify the primary reference by substituting a digital generator as described in the secondary reference for the functionally equivalent analog generator described in the primary reference. The Appellant argued that the secondary reference was not directed to cardiac pacemakers and, therefore, a person skilled in the art would not have modified the cardiac pacemaker of the primary reference to include the digital generator of the secondary reference. In re Keller, 642 F.2d at 421.

The Court disagreed and stated that "one cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references." In re Keller, 642 F.2d at 425-426. It was not a matter of whether one could physically integrate the digital generator of the secondary reference into the cardiac pacemaker of the primary reference, or whether both references were directed to pacemakers, but rather whether a person skilled in the art reading both references together would have considered it obvious to conceptually substitute a functionally equivalent structure. Id. Likewise, the case In re Merck, presents an analogous situation in which the Court provided that it is not whether any one reference teaches the features recited in a rejected claim, but whether the combination of references suggests all of the features. 800 F.2d at 1097-1098.

A reading of these cases reveals their narrow holding, which provides that if a rejection is based upon a combination of references, then non-obviousness cannot be established by showing that one of the references fails to teach or suggest the invention as a whole when other references in the combination remedy the deficiencies of the attacked reference. The present case is clearly distinguishable because both Ferguson and Muller fail to teach or suggest the features recited in the claims of the Subject Application. Here, there is no one reference to attack individually because both of the cited references are deficient.

D. Ferguson and Muller do not collectively teach or suggest a process substantially identical to the process for making the flour composition recited in the instant claims

Throughout the Examiner's Answer, the Examiner asserts that Ferguson and Muller collectively teach or suggest "a process substantially identical with the process for making the starch recited in the instant claims." However, this assertion is incorrect. There is nothing in Ferguson or Muller that would teach or suggest processing a dry-milled flour composition (including the starch components, the protein components, the fat components, and the like). As extensively discussed throughout the Appeal Brief and herein, Ferguson uses starch compositions, not flour compositions, and Muller teaches the intentional and purposeful removal of protein, fat, and the like from dry-milled materials to produce isolated sugars.

The recitation of "flour composition" in the claims of the Subject Application necessarily includes levels of fat and protein. Claims 5, 10, 13, and 46-49 recite features expressly directed to fat and protein content. The teaching in Muller of the intentional and purposeful removal of protein, fat, and the like from dry-milled materials to produce isolated sugars factually precludes the reference from teaching or suggesting compositions as recited in the claims of the Subject Application. Likewise, the teaching in Ferguson of starch compositions (*e.g.*, amylopectins and amylose, c.2, II. 27-32) and their partial hydrolysis products (*i.e.*, lower molecular weight, thinned

starch) factually precludes the reference from teaching or suggesting dry-milled flour compositions containing fat and protein components. The cited references cannot describe "a process substantially identical with the process for making the [flour] recited in the instant claims", because the cited references do not describe processing flour materials to produce a dry-milled flour composition.

E. Obviousness and inherency are distinct legal concepts

In the Examiner's Answer, on pages 3-5 and 10-14, the Examiner argues that the compositional properties (e.g., fat/protein content, viscosity properties, and the like) recited in the claims would have been "reasonably expected" from or would "necessarily followed from of [sic] the combined teaching of Ferguson and Muller." In this regard, the Examiner apparently is relying on a theory of inherency. In other words, the Examiner asserts that the compositional properties would have been inherent in the teachings of Ferguson in view of Muller.

However, as set forth in MPEP § 2141.02.V, an obviousness rejection cannot be based on a theory of inherency. Rather, in order to rely on some allegedly inherent feature of the prior art when establishing an obviousness rejection, the allegedly inherent feature must have been taught or suggested in the prior art at the time that the claimed invention was made. In re Rijckaert, 9 F.3d 1531 [28 USPQ2d 1955] (Fed. Cir. 1993).

In the case In re Rijckaert, the Examiner based an obviousness rejection on a combination of prior art references that failed to teach or suggest certain features recited in the rejected claims. Id. The Examiner argued that these features would have been inherent in the combined disclosures of the prior art and that a person skilled in the art would understand the features to be inherent. Id. The Court of Appeals for the Federal Circuit reversed the Examiner's legal conclusion of obviousness, stating that, as a matter of law, "a

retrospective view of inherency is not a substitute for some teaching or suggestion supporting an obviousness rejection." Id. The Court held that obviousness cannot be shown based on what is not known in the prior art at the time an invention is made, even if the inherency of a certain feature is later established. Id.; see also MPEP § 2141.02.V.

Thus, the law governing obviousness under 35 U.S.C. § 103(a) requires that allegedly inherent features be taught or suggested in the prior art in order to support a case of *prima facie* obviousness. This well-settled principle of law is supported by a number of cases. See, e.g., In re Spormann, 363 F.2d 444, 448 [150 USPQ 449, 452] (CCPA 1966) ("...the inherency of an advantage and its obviousness are entirely different questions. That which may be inherent is not necessarily known. Obviousness cannot be predicated on what is unknown."); W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1555 [220 USPQ 303, 314] (Fed. Cir. 1983) ("Inherency and obviousness are distinct concepts."); Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 1576 [230 USPQ 81, 88] (Fed. Cir. 1986) (an inherent feature may be relied upon to establish obviousness only if the inherency would have been obvious to a person skilled in the art); Cohesive Technologies Inc. v. Waters Corp., 543 F.3d 1351 [88 USPQ2d 1903] (Fed. Cir. 2008) ("... although anticipation can be proven inherently, proof of inherent anticipation is not the same as proof of obviousness.").

Indeed, this principle of law is so well-settled that it is stated in a preeminent treatise on United States patent law. See 2 Donald S. Chisum, Chisum on Patents § 5.03[3][a][i][A] (Matthew Bender) (a single prior art reference may anticipate because of the inherent disclosure of the reference, but inherent disclosure may only be used to support obviousness if the inherent subject matter itself would have been obvious, *i.e.*, taught or suggested in the prior art).

In addition, in the case of In re Newell, 891 F.2d 899 [13 USPQ2d 1248] (Fed. Cir. 1989), the Examiner also based an obviousness rejection on a combination of prior art references that failed to teach or suggest certain features recited in the rejected claims, arguing that the missing subject matter would have been inherent in the prior art. Again, the Court of Appeals for the Federal Circuit reversed the Examiner's legal conclusion of obviousness, holding that, as a matter of law, the Examiner cannot use an unsupported inherency argument as an end-run around the requirement for a teaching or suggestion of the asserted inherent feature in the prior art. Id. The Court held that additional extrinsic prior art evidence is required to support an asserted inherency argument in an obviousness rejection. Id.

Thus, the case law makes it abundantly clear that obviousness rejections based on asserted "inherent" properties in the art cannot be sustained when there is no teaching or suggestion in the prior art to support the assertedly inherent subject matter. In re Spormann, *supra*; In re Rijckaert, *supra*. When the Examiner asserts that there is an inherent feature in the prior art, the Examiner must produce supporting references that factually teach or suggest the allegedly inherent subject matter. In re Newell, *supra*.

In the present case, the Examiner has failed to cite to any references or other evidence that teaches or suggests that Ferguson or Muller describe flour compositions having fat and protein content, or the viscosity properties recited in the claims. Therefore, the cited references cannot serve as the basis for a *prima facie* case under 35 U.S.C. § 103(a).

Moreover, to establish inherency, the extrinsic evidence (*i.e.*, the cited references) must make clear that the missing descriptive matter is **necessarily present** in the thing described in the reference, and that it would be recognized as such by a person skilled in the art. In re Robertson, 169 F.3d 743, 745 [49 USPQ2d 1949, 1950-51] (Fed. Cir. 1999); MPEP § 2112.IV. Inherency

may not be established by probabilities or possibilities; inherency requires factual evidence of an alleged inherent feature. Id. In this regard, MPEP § 2112.IV provides that:

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).

Accordingly, in order for the fat/protein content and the viscosity properties, as recited in the claims of the Subject Application, to have been inherent, as asserted by the Examiner, these particular properties must necessarily exist in the subject matter described in the cited references. However, the viscosity properties, as recited in the claims of the Subject Application, are not taught or suggested in the cited references. Moreover, the cited references both essentially teach away from including fat and protein in the described compositions. Therefore, the Examiner's unsupported assertion that the recited compositional and viscosity properties would have been inherent is a conclusory statement that cannot form the basis of a *prima facie* case under 35 U.S.C. § 103(a).

F. Process Features

In the Examiner's Answer, on pages 8 and 12, the Examiner asserts that Appellant is arguing product-by-process features but that the patentability of a product cannot be based on process limitations, citing to In re Thorpe, 777 F.2d 695, 698 [227 USPQ 964,966] (Fed. Cir. 1985). Here, the Examiner is again citing to case law from the MPEP (§ 2113) without regard to whether the case law is on point.

The claim rejected in In re Thorpe recited "The product of the process of Claim 1." 227 USPQ at 965. The present case is clearly distinguishable. For example, claim 5 of the Subject Application recites:

5. The composition of claim 1, wherein the acid modified flour composition is formed from:

an acid component; and

a flour component having an amount of fat, wherein the amount of the acid component is added, at least in part, relative to the fat percent in the flour component.

This claim recites a compositional relationship between the amount of added acid and the amount of fat in the flour composition. Granted, the relationship may be implemented as a processing parameter during the formation of the composition when the acid is added to the dry-milled flour, but this does not change the underlying compositional relationship. This relationship, which involves acid content relative to fat content, cannot be obtained from the combined teachings of Ferguson and Muller, as a whole, because these references do not even mention any acid-to-fat relationship and, in fact, collectively teach the intentional and purposeful removal of fat altogether.

Furthermore, as stated in the MPEP, "[t]he structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially where ... the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product." MPEP § 2113, citing In re Gamero, 412 F.2d 276, 279 [162 USPQ 221, 223] (CCPA 1979). Here, the inventors have demonstrated in the specification that an acid modified dry-milled flour composition exhibits unexpected properties when the acid is added to the flour based, at least in part, on the fat content of the flour. See Specification, paragraphs [0039]-[0040] and Examples 1-6. Thus, in the present case, the recited processing parameters indeed impart distinctive compositional and material properties to the final product and, therefore, should be considered when assessing patentability.

G. The Examiner's statements regarding lack of "evidence to the contrary"

In the Examiner's Answer, on page 8, the Examiner states that "Appellant fails to provide any factual evidence to show that the composition obtained by the

combined teaching of Ferguson and Muller fail [*sic*] to have the properties as appellant [*sic*] set forth in claim 1. The Appellant's argument can not take place of the evidence." The Examiner makes similar assertions regarding an alleged lack of evidence on pages 9-14 of the Examiner's Answer.

As a preliminary matter, Appellant notes that "[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness." MPEP § 2142. Here, in view of the significant deficiencies of both Ferguson and Muller, Appellant submits that the Examiner has not established a *prima facie* case and, therefore, Appellant had no burden of going forward with production of evidence. Id. (case law citations omitted).

Nevertheless, Appellant respectfully submits that the cited references themselves – *i.e.*, Ferguson and Muller – provide extensive evidence supporting Appellant's arguments presented herein and in the Appeal Brief filed June 19, 2009. For example, Ferguson in view of Muller describes end products consisting of isolated carbohydrate materials having protein, fat, and the like removed. The claims of the Subject Application recite a flour composition having protein components and fat components. These are different and distinct compositions. The cited references present facts that directly contradict the Examiner's assertions and that directly support the Appellant's arguments.

H. Summary

Clearly, the Examiner's rejection is based on a selective and incomplete application of the cited references. The Examiner cites only those portions of Ferguson and Muller that he can use to re-construct the claims of the Subject Application, while ignoring the contradictory portions of the cited references. It is improper to selectively ignore significant portions of the disclosure of the cited references.

The Examiner also attributes features to the cited references that are not factually supported, such as having fat and protein in the end product compositions. Not only does this contradict the express teachings of the combined references, it is also not legally permissible to base an obviousness rejection on inherency in this manner. Thus, the Examiner has not established a *prima facie* case of obviousness.

IV. CONCLUSION

For the reasons discussed above, and in the Appeal Brief filed on June 19, 2009, Appellant respectfully asks the Board to direct the Examiner to: (1) withdraw the obviousness rejections under 35 U.S.C. § 103(a); (2) rejoin the withdrawn claims; and (3) issue a Notice of Allowance for all claims pending in the Subject Application.

Respectfully submitted,

20-Nov-2009
Date


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